

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Ch

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/308,207 05/13/99 DUNN-COLEMAN

N GC369-2PCT

DEBRA J GLAISTER
GENENCOR INTERNATIONAL INC
925 PAGE MILL ROAD
PALO ALTO CA 94304

HM22/0522

EXAMINER

WALICKA, M

ART UNIT

PAPER NUMBER

1652

10

DATE MAILED: 05/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

<p style="text-align: center;">Office Action Summary</p>	<p>Application No.</p> <p>09/308,207</p>	<p>Applicant(s)</p> <p>DUNN-COLEMAN ET AL.</p>	
	<p>Examiner</p> <p>Malgorzata A. Walicka</p>	<p>Art Unit</p> <p>1652</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 32-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other: _____ |

Art Unit: 1652

This is 371 application of the PCT application PCT/US97/20873 filed on Nov. 13, 1997.

Applicants' election of Group I, claims 1-31, without traverse is acknowledged. Claims 1-40 are pending in the application. Claims 1-31 are the subject of this office action; claims 32-40 are withdrawn from consideration by the examiner, 37 CFR 1.142(b), as being drawn to the non-elected invention.

Detailed Office Action

1.1. *Objections*

1.1. *Abstract*

The abstract is missing. For examination purposes the abstract of the PCT publication WO 98/21341 was used. This abstract is objected to because it does not describe the invention as now claimed. It is silent about usage of **dehydratase activity** in combination with proteins X and protein 1, protein 2 or protein 3. In addition, the source and function of protein X, protein 1, protein 2, and protein 3 are not quoted. A new abstract is required. See MPEP § 608.01(b).

1.2. *Drawings*

This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Figure 9 and 10 are objected because description of coordinate y is missing.

1.3. *Disclosure*

The disclosure is objected to because the symbol ® in equations 1, 2, 3, 4, on pages 1 and 2 has no meaning, and should be replaced by an arrow. Appropriate correction is required.

The address of the American Type Culture Collection on page 9, line 34 is wrong.

2. *Rejections*

2.1. *35 U.S.C. section 112, second paragraph*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1652

Claim 1, 2, 19, 20, 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrases "protein X", "protein 1", "protein 2" and "protein 3" in claims 1, 2, 19, 22 and 23 render the claims indefinite. The claims do not recite the function and structure of said proteins, thus, do not set forth the metes and bounds of the patent protection desired. Claims 3 and 8-14 are included in this rejection because they are dependent from rejected claim 1 or 2 and do not correct deficiency of the claim from which they depend.

2.2. Statutory double patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 3, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18 are rejected under 35 U.S.C. 101 as claiming the same invention as, respectively, that of claims 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 of prior U.S. Patent No. 6,136,576. This is a double patenting rejection.

2.3. Nonstatutory double patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1, 4, 5, 6 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,136,576. Although the conflicting claims are not identical, they are not patentably

Art Unit: 1652

distinct from each other because each of claim 1, 4, 5, 6 and 7 encompass the method for production of 1,3-propanediol that is recited in claim 1 of the patent. Thus, the combine scope of claim 1, 4, 5, 6, and 7 of the instant application is the same as the scope of claim 1 of the patent.

Claims 2, 16, 17 and 18 of the instant application are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,136,576. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 2, 16, 17 and 18 of the instant application encompass the method for production of 1,3-propanediol that is recited in claim 2 of the patent.

3. Allowable subject matter

Claims 19-31 would be allowable if claims 19, 20, 22 and 23 were rewritten or amended to overcome the rejection under 35 U.S. C. 112 set forth in this office action.

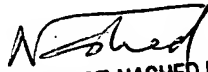
The following is a statement of reasons for the indication of allowable subject matter: there is no prior art of record teaching a recombinant microorganism capable of producing 1,3-propanediol from a carbon source said recombinant microorganism comprising a gene encoding dehydratase activity, a gene encoding glycerol-3-phosphatase and a gene encoding protein X. There is also no teaching about said recombinant microorganism containing additionally protein 1, protein 2 or protein 3.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malgorzata A. Walicka, Ph.D., whose telephone number is (703) 305-7270. The examiner can normally be reached Monday-Friday from 10:00 a.m. to 4:30 p.m.

If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, Ph.D. can be reached on (703) 308-3804. The fax phone number for this Group is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionists whose telephone number is (703) 308-0196.

Malgorzata A. Walicka, Ph.D.
Art Unit 1652
Assistant Patent Examiner


NASHAAT T. NASHED PH.D.
PRIMARY EXAMINER